

Myrocarpus emarginatus (Leguminosae, Papilionoideae, Sophoreae), a New Species from Bolivia

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ABSTRACT. *Myrocarpus emarginatus*, known only from Bolivia, is described and illustrated. Its diagnostic characters are the emarginate leaflet apex, pellucid dots and streaks immersed on the leaflet blades, and the areolate reticulation of the seed chamber. The new species is morphologically similar to *Myrocarpus fastigiatus* Allemão, especially in the shape of its leaflets, ranging from elliptic to oblong; neither species exhibits leaflets with an acuminate apex.

Key words: Bolivia, Leguminosae, *Myrocarpus*, Papilionoideae, Sophoreae.

Myrocarpus Allemão is a small legume genus placed in the tribe Sophoreae (De Candolle, 1825; Benthams, 1865; Polhill, 1981, 1994) due to its leaves being pinnate, a calyx valvate in bud, a corolla with 5 petals, but these not much differentiated, stamens 10 and free, as well as the lack of jointed fruits. The genus itself can be recognized by the presence of pellucid dots and streaks in the leaflets, a regular corolla, and marginally winged fruit. The most recent taxonomic treatment of *Myrocarpus* was by Rudd (1972), who recognized four species based mainly on the size of leaflets and fruits, and the shape of the leaflet apex. Five species are spread across South America from Venezuela to Argentina. *Myrocarpus leprosus* Pickel and *M. fastigiatus* Allemão are restricted to Brazil: the first is endemic to the state of São Paulo, and the second occurs from Rio de Janeiro to Pernambuco. Both can be encountered from the Brazilian coastal regions, mainly in Atlantic rainforest. *Myrocarpus venezuelensis* Rudd occurs in Venezuela and Brazil in gallery forest. Of broadest distribution is *M. frondosus* Allemão, which is found in Brazil, Paraguay, and Argentina in a variety of habitats including mesophytic forests, Atlantic rainforest, and gallery forest. During a taxonomic revision of *Myrocarpus* (Sartori, 2000) at the Universidade Estadual of Campinas, UNICAMP, Brazil, it became necessary to propose a new name for a striking species from Cochabamba and vicinity, Bolivia.

Myrocarpus emarginatus A. Sartori & A. M. G. Azevedo, sp. nov. TYPE: Bolivia. Cochabamba: Campero, bajada del Buena Vista al Rio Grande, 17°27'S, 63°40'W, 27 Jan. 1993, C. Antezana 614 (holotype, BOLV; isotype, MO). Figure 1.

Myrocarpus emarginatus *M. fastigiatus* nobis similis, sed apice emarginato, punctis lineolisve pellucidis notatis et in laminae locis depressis, pericarpio praeter alas areolato, petiolis, petiolulis, foliolis, stipitis majoribus differt.

Arbor 3–9 m alta. Folia imparipinnata 7–9-foliolata; petioli 2.0–2.7 cm longi; rachis 5.0–8.7(–11.2) cm longa; petioluli 4.0–4.8 mm longi, foliola ca. 3.5–4.2 cm longa et 2.6–3.0 cm lata, elliptica, apice emarginato, basi inaequali, utrinque glabrescentia, punctis lineolisve pellucidis notatis et in laminae locis depressis. Flores non visi. Fructus samaroideus, stipitatus, glaber, compressus, ellipticus, elongatus, ca. 5.2–7.7 cm longus et 1.0–1.3 cm latus, pericarpium incrassatum praeter alas, areolatum, 0.5–0.8 cm latum.

Tree 3–9 m, branches slightly square in cross section, lenticel inconspicuous, stipules deciduous. Leaves imparipinnate, 7- to 9-foliolate. Petiole, rachis, and petiolules glabrous, petiole 2.0–2.7 cm long; rachis 5.0–8.7(–11.2) cm long; petiolules 4.0–4.8 mm long; leaflets alternate, elliptic or sometimes oblong, 3.5–4.2 × 2.6–3.0 cm, the lower pairs smaller, the apex emarginate, the base inequilateral, rarely cuneate, margins smooth, not revolute, both surfaces glabrous, concolorous, venation brochidodromous, veins prominent on upper blade face, secondary veins forming an acute angle with the primary leaflet vein, dots and streaks pellucid, conspicuous, immersed. Flowers unknown. Samaras 5.2–7.7 × 1.0–1.3 cm, yellowish, stipe 5.7–8.0 mm long, seed chamber areolate, 5–8 mm wide, pale yellowish brown, calyx and stamens persistent, the apex wings obtuse, sometimes apiculate, the base inequilateral.

Myrocarpus emarginatus can be recognized by its emarginate leaflet apex, pellucid dots and streaks immersed on leaflet blades, as well as the areolate reticulation of the seed chamber. The new species closely resembles *Myrocarpus fastigiatus*, especially in the lack of an acuminate leaflet apex. How-



Figure 1. *Myrocarpus emarginatus* A. Sartori & A. M. G. Azevedo. Fruiting branchlet. Scale = 2 cm. (Drawn from C. Antezana 614, MO.)

ever, *M. fastigiatus* exhibits a retuse leaflet apex, the pellucid dots and streaks are not immersed in the leaflet blade, and the seed chamber has scariform reticulation; its leaflets are smaller than 3.5×2.0 cm, and its petiole, petiolule, and stipe are shorter than 1.5 cm, 4.0 mm, and 4.5 mm long, respectively. *Myrocarpus emarginatus* can be distinguished by its larger leaflets and longer petiole, petiolule, and stipe. The distribution and habitat of the two species do not overlap: *Myrocarpus emarginatus* is found in Bolivia, growing in xerophytic forest; *M. fastigiatus* occurs in Brazilian coastal regions from Rio de Janeiro to Pernambuco, growing in Atlantic rainforest.

Even in the absence of floral material, specimens of *Myrocarpus emarginatus* are obviously recognizable as distinctive within the genus by the areolate reticulation of its seed chamber and emarginate leaflet apex.

In the tribe Sophoreae, only *Myrocarpus*, *Myroxylon* L.f., and *Myrospermum* Jacquin exhibit pellucid dots and streaks on leaflet blades. Vegetative material of *Myrocarpus emarginatus* can sometimes be confused with specimens of *Myrospermum*, but its thinly coriaceous leaflets, with an emarginate leaflet apex, and its prominent veins on the upper surface of its leaflets distinguish *Myrospermum* from the new species described herein. Specimens of *Myrospermum* can be characterized by their membranous leaflets, retuse leaflet apexes, and the veins not prominent on the upper surfaces of leaflets. The geographic distribution of *Myrospermum* from Central America to northeastern South America has been established, and *Myrospermum emarginatus* is endemic to Bolivia (Sartori, 2000).

Myrocarpus emarginatus is known from the department of Cochabamba, Bolivia. According to the type collection (*C. Antezana* 614), this taxon occurred in xerophytic forest and was observed on stony soils with *Neocardenasia herzogiana* Backeberg, *Schinopsis haenkeana* Engler, and *Cochlos-*

permum tetraporum Hallier f., at altitudes of 1170–2050 m. In Cochabamba, it is commonly called Quina-quina as indicated on the type label. Fruits were collected in January (for the holotype) and April (paratype *M. Fernandez* 2).

The specific epithet refers to the emarginate leaflet apex, which provides a conspicuous vegetative character.

Paratypes. BOLIVIA. **Cochabamba:** Campero, Rio Grande, 25 Oct. 1999, *C. Antezana* 1342 (BOLV); Campero, Bajada Quinarí, Rio Mizque, 12 Apr. 1999, *M. Fernandez* 2 (BOLV).

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